

Commander, Navy Region Southwest NAVAL BASE SAN DIEGO, CA

2011 SECRETARY OF DEFENSE ENVIRONMENTAL AWARDS ENVIRONMENTAL QUALITY - NON-INDUSTRIAL INSTALLATION NOMINATION

INTRODUCTION

Naval Base San Diego (NBSD) encompasses the NBSD main-site, the Broadway Complex in downtown San Diego, the Mission Gorge Recreation Center, Balboa Hospital, NAVFAC SW Headquarters, and 16 family housing sites. NBSD occupies approximately 1,556 acres of land and 326 acres of San Diego bay, with 12 Piers and two channels offering 56,616 feet of berthing. NBSD has an on-base population of 31,090 military, federal civilian and contracted employees. NBSD is divided into two distinct areas: the maintenance and repair area along the shoreline (wet side) and the community facilities complex east of Harbor Drive (dry side). NBSD supports 56 ships, and 182 tenant commands. NBSD is also home to Military Sealift Command, Maritime Administration, and U.S. Coast Guard ships, as well as numerous other U.S. vessels. In addition, NBSD provides services including housing, security, public works, environmental, supply, and administrative facilities for tenant units.

San Diego is America's sixth largest city and has become home to technology, telecommunications, and biotechnology companies. San Diegans take tremendous pride in their community and the local environment. In the spirit of community partnership, NBSD is a vigilant caretaker of its property, steadfast in compliance with environmental laws and regulations. NBSD has assumed this responsibility with an aggressive compliance oversight program and has developed superior relationships with San Diego's elected officials and the regulatory community.

BACKGROUND

Environmental Aspects NBSD manages 74 San Diego Air Pollution Control Board (APCD) permitted sites and/or equipment, three California Air Resources Board permits, 39 San Diego County Department of Environmental Health permitted hazardous waste (HW) collection sites, four medical waste permits, nine underground storage tank (UST) permits, one Department of Toxic Substances Control (DTSC) permit under the Resource Conservation and Conservation Recovery Act (RCRA), three California Integrated Waste Management Board (CIWMB) permits for Tire Program Identification, 12 Food Establishment Wastewater Discharge (FEWD) permits, two Industrial Wastewater (IWP) permits, and two National Pollution Discharge Elimination System (NPDES) permits (one for the facility industrial sites and one for the graving dock). In

the past fiscal year, NBSD has had 213 site visits by six different regulatory agencies without a single High Priority Violations (HPV) or Significant Non-Compliance (SNC).

Environmental Organization The NBSD Environmental Department is comprised of eleven Environmental Protection Specialists. These personnel report to the Installation Environmental Program Manager, who in turn reports to the NBSD Public Works Officer for environmental compliance. The program support lead is responsible for updating monthly inspection schedules, tracking inspection completions, internal deficiencies, regulatory visits, etc. and subsequently compiling this data into a tracking database, and from this data developing a trend analysis to identify areas of possible concern. The trend analysis data is used by our training lead to develop specialized training based on identified deficiencies.

Community Involvement NBSD has established working relationships with the City of National City, the City of San Diego, the Main Street Association, the San Diego 8th District Council, the Barrio Logan Association and General Dynamics/NASSCO.

PROGRAM SUMMARY

Using the facility environmental policy, NBSD has established the following goals:

- Maintain or improve environmental compliance to support mission;
- Improve environmental processes and functions;
- Improve responsiveness to customers;
- Improve the quality of environmental services that are delivered;
- Maximize operational flexibility.

These goals are measured through a system of metrics and surveys as part of NBSD's Environmental Management System (EMS). NBSD established a monthly inspection program that identifies environmental aspects and sets an inspection schedule. NBSD also established air, water, and hazardous waste Personnel Qualification Standards for staff environmental professionals and provided annual training in current law and regulations to ensure all personnel remain current in environmental regulations. An external audit on 18-21 May 2009 determined that NBSD's EMS program is ISO 14001:2004 compliant. NBSD subsequently self-declared ISO 14001 compliance on 21 July 2009 in accordance with DOD EMS policy.

ACCOMPLISHMENTS

ENVIRONMENTAL MANAGEMENT SYSTEM

Naval Base San Diego's EMS program identified 150 air, health, and water aspects that support sixteen tenant commands within the NBSD footprint. In addition, NBSD's

Environmental staff inspects industrial sites listed in the facility Storm Water Pollution Prevention Plan (SWPPP), storage containers and tanks subject to the Spill Prevention Control and Countermeasures (SPCC) program, and other facility operations. To manage this program, the Environmental Staff established the following parameters:

Goal: Provide NBSD with the finest environmental compliance support through a rigorous inspection, review, and training program.

Objective: Identify all aspects, develop inspection frequencies and individual inspection checklists for each aspect; develop a training program that familiarizes personnel working at sites or operating equipment with their responsibilities; and ensure all environmental staff receive EMS training.

Target: Inspect all aspects at least monthly and develop a written record of all inspections. Provide annual EMS training to all personnel operating permitted equipment or at permitted sites. Annually review permit list to identify opportunities to retire permits.

Program Implementation

- The NBSD environmental inspection program is divided by media: hazardous waste, air, and water. Each media has a minimum of two personnel assigned to manage and oversee the program.
- Each program team developed individual inspection checklists for each aspect, which were then reviewed and assigned an alpha-numeric code by the Environmental Manager.
- Staff members developed inspection schedules for their assigned aspects. The inspection schedules include: location of inspection, point of contact, permit number if applicable, type of equipment or operation, inspection frequency, applicable checklist, and approximate duration of inspection. This schedule is easy to use, and simplified new employees comprehension of NBSD's system.
- Based on customer requests and years of field experience, 13 training modules addressing a wide variety of environmental topics were developed for classroom training complete with certificates. Many of our training modules are now mandatory annual requirements.
- A deficiency notice (DN), in triplicate, was developed as a method for tracking internal deficiencies identified by the environmental staff. The DN identified the discrepancy(s), annotated the corrective action(s) needed to be taken, and the time frame in which the corrective actions needed to be completed. Ships receiving a DN were required to schedule a mandatory training session with the NBSD environmental office to close out the DN.
- This data is also used to develop a trend analysis of identified discrepancies to focus our training and corrective actions on.

Program Summary NBSD's Environmental Management System is a proven effective tool for identifying operations where environmental impact may be minimized or

eliminated through new processes. The result is the approval by regulators to retire permits for these activities, reducing liability and resulting in cost savings to the Navy. During 2011, one permit has been retired resulting in approximately 500 annual dollar savings to the Navy.

WASTE REDUCTION EFFORTS

NBSD continued hosting Electronics and Appliance Recycling events in a cooperative effort with DRMO, Clean Harbors, and Sustained Solid Waste. Over 24 tons of electronics and appliances were diverted from hazardous waste landfills and provided local schools equipment for refurbishment/reuse. Unusable items were recycled, saving thousands of dollars in disposal costs.

ENVIRONMENTAL COMPLIANCE ASSESSMENT AND MANAGEMENT PROGRAM

Zone Inspection Program NBSD's Commanding Officer implemented a very effective zone inspection program to assess the condition, capacity, configuration and capability of all 235 buildings aboard NBSD. Zone inspections are conducted three times each week with one inspection headed by the Commanding Officer, the second by the Executive Officer, and the third by the Command Master Chief. Each of these inspection teams is supported by personnel representing Safety, Public Works, Tenant Liaison and Federal Fire. The goal is to visit each building at least once annually. One aspect of these inspections is to discover potential environmental infractions. Tenant commands are notified of environmental findings discovered at their facilities by navy message, and the findings are tracked by NBSD Facilities Department to ensure corrective action is taken. During 2009, 15 environmental findings were recorded during zone inspections that would have resulted in regulatory violations and fines.

Regulatory Interaction NBSD established working relationships with all local and regional environmental interests, most notably the San Diego County Department of Environmental Health, the California Department of Toxic Substance Control, the California Environmental Protection Agency, the City of San Diego Environmental Department, and the San Diego County Air Pollution Control Board. In 2011, six regulatory agencies visited over 213 sites at NBSD.

Regional Oil Spill Working Group (ROSWG) The Regional Oil Spill Working Group (ROSWG) is chaired by the NBSD Commanding Officer and is represented by all major fleet type commanders and shore support commands. The focus of the ROSWG is to monitor spill related activities and trends, and develop spill prevention measures. The ROSWG meets semi-annually and sponsors semi-annual Waterfront Oil Spill Symposiums (WOSS) that focuses on effective long term methods for reducing oil spills in San Diego Bay. One of the key factors in the success of the group's work is the requirement for a root cause analysis for each spill. This approach has been key in identifying and responding with corrective measures to prevent a repeat of the incident. ROSWG operates under the banner: "Readiness through Prevention" as a constant reminder of the group's long-term charter - to prevent pollution at its source.

Training Programs NBSD has established a training program with the following self-contained modules designed for specific applications:

- Business Plan Training
- CDO Training
- Emergency Response Training
- Hazmat Training
- Hazwaste, Air, Water Training for Contractors
- Hazwaste Annual Training
- Medical Waste Training
- Pollution Prevention (P2) Training
- Ships Forces Training
- SPCC Training
- Storm Water Training
- SWPPP/NPDES Training
- UST Operator Training

Training is held monthly for mandatory requirements, such as hazardous waste coordinator certification, and as required for other areas.

Pier BMP Initiative NBSD is partnering with SPAWARSYSCEN to implement a pilot sweeping/power washing best management practice (BMP) for selected piers. The planned BMP is for the piers to be vacuumed, swept and power washed on a regular schedule. This program will focus on meeting state established storm water benchmarks for copper and zinc and the toxicity standard.

Water Resource Management NBSD completed the \$10.06M Angelley Hall barracks renovation to LEED Silver standards. The 77,934 SF renovation project will receive over 50 LEED points through the utilization of a grey water collection and filtration system for landscape irrigation and water efficient fixtures reducing interior potable water use by over 20%, as well as installation of a CFC-free air conditioning system, and contractor diversion of over 70% of construction waste from local landfills. The barracks provides housing for 1,344 Sailors. In addition, NBSD continued to execute projects to replace existing landscape areas, converting existing landscape to artificial turf, thereby saving millions of gallons of water annually. These projects also eliminate fertilizer and pesticide use, thereby removing these chemicals from storm water runoff.

EFFECTIVE USE OF FUNDS

NBSD began sending shore energy “bills” to key tenants. The bills outline tenant total utility usage with established targets aligned to help achieve SECNAV and federally mandated energy reduction goals.

NBSD submitted over \$6.8M for 8 FY13 Energy SRM (eSRM) projects for CNIC set aside funding, including \$600K for projects dedicated to Naval Medical Center Balboa

facilities which transitioned to CNIC on 01 Oct 11. The combined projects have a potential energy savings of over \$719K annually.

During this period, we executed over \$280K of award and energy rebate funds. This included a test project to monitor the energy savings of turning 278 CNIC computer workstations off during non-work hours. This project will save 120,000 kWh (\$13.6K annually- 4.4 year payback).

NBSD has implemented many Fast Payback projects designed for rapid return on investment. One such project replaced High-intensity exterior wall fixtures with 10 Watt LED fixtures estimated to save \$15,900 of energy and maintenance cost annually.

A pilot study determined the feasibility of installing an anaerobic digester at the Galley to recycle food waste into energy for Galley use. The study indicated an ability to produce 6,000 kWh monthly, reducing grid energy requirements.

NBSD began installation of 193 advanced meters to monitor 144 electrical, 15 gas, 32 water, and 2 steam points. The devices include communication and central point of presence (POP) features for data gathering and access with the intent of energy savings.

By demolishing 60K SF of excess infrastructure, NBSD reduced the annual facility sustainment model (FSM) burden by over \$228K each year. BRAC, consolidation, and reorganization projects have contributed to the demolition of 2 buildings, an outdated pier, and the planned demolition of excess footprint to reduce the FSM burden an additional \$297K annually.

NBSD completed a new 31,200 SF Child Development Center with 23 classrooms supporting 306 children ranging from infant to 5 years. The project is Leadership in Energy and Environment Design (LEED) Silver certified, obtaining points from categories including indoor environmental quality, water efficiency, energy and atmosphere, and sustainable site.

NBSD pioneered and developed DOG ZEBRA, an energy conservation campaign designed to change behavior prompting securing of lights and computers and turning down thermostats at the end of the day.

NBSD also opened a new LEED Silver Certified NEXCOM Mini-Mart, conveniently located to the rear of bachelor housing and training facilities.

COMMUNITY RELATIONS

NBSD initiated the “Clean Base – Safe Neighborhood” program encompassing four volunteer programs: The Main Street Neighborhood Cleanup; Operation Clean Sweep, a SD Bay shore, surface, and subsurface water clean up; Naval Base creek outfall clean up; and San Diego harbor debris pick-up initiative. These efforts demonstrate to

the local community our commitment to the environment and enhance the close relationship NBSD enjoys with its neighbors. The program ensures a safer, cleaner environment, promotes trust, understanding, and good will with our neighbors, and mitigates inherent sensitivities often associated with a gated military installation. Individually, the four efforts encompass area neighborhoods, creek-lands and outfalls that terminate on NBSD, and the water around the base's piers. Taken together, all of NBSD's environmental stewardship efforts secure a more environmentally friendly atmosphere, promote base pride, and help maintain a close relationship with the community.

NBSD continued its Chollas Creek trash removal partnership with the City of San Diego, removing 36,440 pounds of floating trash, reducing the amount of contamination flowing into San Diego Bay.

NBSD also collected over 30K pounds of base-wide trash. We improved base-wide cleanliness and appearance by employing expanded bi-monthly base inspections and implemented cleaning reports which identify shortfalls and correct discrepancies as they develop.

NBSD diverted 20,669 tons (100% increase over FY10) of solid construction and demolition waste from the municipal landfill, yielding \$442K in cost avoidance and achieving a phenomenal 85% diversion rate.

NBSD is reducing our carbon footprint by transforming into a pedestrian friendly base with walking paths, bike lanes, and bike racks as well as promoting a base-wide "Plant a Tree" program. Also, NBSD's Transportation Incentive program is the largest on the West Coast and at the forefront promoting alternative transportation.

NBSD environmental personnel participated in "National City Day" at San Diego County Fair, an event to showcase the best of National City through exhibits and presentations. Also, partnering with National City and the City of San Diego, NBSD hosted the bi-annual Main Street Clean Up, removing tons of trash from neighborhood streets.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) PLANNING, ANALYSIS, AND IMPLEMENTATION

At NBSD, all facilities projects that will result in a physical change to the environment begin with the Installation Site Approval process. When a Site Approval Request form is submitted to the Planning Office, the project is reviewed for the appropriate level of NEPA documentation. The NBSD Environmental Office prepares all Categorical Exclusions (CATEX) for signature by the Public Works Officer (by delegation for the ICO). The NBSD Environmental Office also initiates the EPR process to request funds for NEPA projects. Proper archiving of the CATEX is the responsibility of Installation Staff. NEPA documentation (EA/EIS) necessary for MILCON projects is initiated by the Coastal Integrated Product Team at NBSD.